

Notice of Allowability

Application No.

10/653,241

Examiner

Irakli Kiknadze

Applicant(s)

IKEDA ET AL.

Art Unit

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-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address--

All claims being allowable, PROSECUTION ON THE MERITS IS (OR REMAINS) CLOSED in this application. If not included herewith (or previously mailed), a Notice of Allowance (PTOL-85) or other appropriate communication will be mailed in due course. **THIS NOTICE OF ALLOWABILITY IS NOT A GRANT OF PATENT RIGHTS.** This application is subject to withdrawal from issue at the initiative of the Office or upon petition by the applicant. See 37 CFR 1.313 and MPEP 1308.

1. ☒ This communication is responsive to 08/31/2005.
2. ☒ The allowed claim(s) is/are 19,20 and 23-29.
3. ☒ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
 - a) ☒ All b) ☐ Some* c) ☐ None of the:
 1. ☒ Certified copies of the priority documents have been received.
 2. ☐ Certified copies of the priority documents have been received in Application No. _____.
 3. ☐ Copies of the certified copies of the priority documents have been received in this national stage application from the International Bureau (PCT Rule 17.2(a)).

* Certified copies not received: _____.

Applicant has THREE MONTHS FROM THE "MAILING DATE" of this communication to file a reply complying with the requirements noted below. Failure to timely comply will result in ABANDONMENT of this application.

THIS THREE-MONTH PERIOD IS NOT EXTENDABLE.

4. ☐ A SUBSTITUTE OATH OR DECLARATION must be submitted. Note the attached EXAMINER'S AMENDMENT or NOTICE OF INFORMAL PATENT APPLICATION (PTO-152) which gives reason(s) why the oath or declaration is deficient.
 5. ☐ CORRECTED DRAWINGS (as "replacement sheets") must be submitted.
 - (a) ☐ including changes required by the Notice of Draftsperson's Patent Drawing Review (PTO-948) attached
 - 1) ☐ hereto or 2) ☐ to Paper No./Mail Date _____.
 - (b) ☐ including changes required by the attached Examiner's Amendment / Comment or in the Office action of Paper No./Mail Date _____.
- Identifying indicia such as the application number (see 37 CFR 1.84(c)) should be written on the drawings in the front (not the back) of each sheet. Replacement sheet(s) should be labeled as such in the header according to 37 CFR 1.121(d).
6. ☐ DEPOSIT OF and/or INFORMATION about the deposit of BIOLOGICAL MATERIAL must be submitted. Note the attached Examiner's comment regarding REQUIREMENT FOR THE DEPOSIT OF BIOLOGICAL MATERIAL.

Attachment(s)

1. ☒ Notice of References Cited (PTO-892)
2. ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)
3. ☐ Information Disclosure Statements (PTO-1449 or PTO/SB/08), Paper No./Mail Date _____
4. ☐ Examiner's Comment Regarding Requirement for Deposit of Biological Material
5. ☐ Notice of Informal Patent Application (PTO-152)
6. ☐ Interview Summary (PTO-413), Paper No./Mail Date _____
7. ☐ Examiner's Amendment/Comment
8. ☒ Examiner's Statement of Reasons for Allowance
9. ☐ Other _____

DETAILED ACTION

1. In response to the Office action dated April 5, 2005 the Amendment has been received on August 31, 2004.

Claims 1-18, 21 and 22 have been canceled.

Claims 23-29 have been newly added.

Claims 19,20 and 23-29 are currently pending in this application.

Allowable Subject Matter

2. Claims 19, 20 and 23-29 are allowed.

3. The following is an examiner's statement of reasons for allowance:

Claims 19 and 20 are allowed because prior art fails to teach or make obvious an X-ray computer tomography apparatus, comprising: a pixel number comparing unit configured to keep comparing the number of pixels obtained by a pixel number measuring unit with the threshold value of the number of pixels set by a threshold setting unit and to generating an instruction signal for stopping X-ray irradiation when both substantially agree as claimed in combination with all elements of claim 19. Claim 20 is allowed by virtue of its dependence.

Claims 23, 24 and 25 are allowed because prior art fails to teach or make obvious an X-ray computer tomography apparatus, comprising an irradiation condition setting unit configured to set irradiation conditions for first scanning under the first

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irradiation condition, second scanning under the second irradiation condition, and third scanning under the first irradiation condition during generation of the second image data as claimed in combination with all elements of claims 23 or 24 respectively. Claim 25 is allowed by virtue of its dependence.

Claims 26 and 27 are allowed because prior art fails to teach or make obvious an X-ray computer tomography apparatus, comprising a ROI setting unit configured to attach an identifiable index to the region of interest in at least one of blood vessels at which a contrast medium arrives earliest and latest, respectively as claimed in combination with all elements of claim 26. Claim 27 is allowed by virtue of its dependence.

Claim 28 is allowed because prior art fails to teach or make obvious an X-ray computer tomography apparatus, comprising a ROI setting unit configured to attach an identifiable index to the region of interest in at least one of blood vessels at which a contrast medium arrives earliest and latest, respectively as claimed in combination with all elements of claim 28.

Claim 29 is allowed because prior art fails to teach or make obvious an X-ray computer tomography apparatus, comprising a threshold setting unit configured to set threshold values for CT values; and a CT value comparing unit configured to keep comparing CT values obtained by the CT value calculating unit with the threshold values set by the threshold setting unit and to generate an instruction signal for stopping X-ray irradiation when both substantially agree as claimed in combination with all elements of claim 29.

Any comments considered necessary by applicant must be submitted no later than the payment of the issue fee and, to avoid processing delays, should preferably accompany the issue fee. Such submissions should be clearly labeled "Comments on Statement of Reasons for Allowance."

Conclusion

4. The prior art made of record and not relied upon is considered pertinent to applicant's disclosure. Majima et al. (US Patent 6,198,797 B1), Shinohara et al. (US Patent 6,188,744 B1), Ozaki (US Patent 5,987,093), Ohishi (US Patent 6,845,142 B2), (US Patent 6,363,134 B1) and Saito et al (US Patent 6,826,297 B2) teach generating images for region of interest by means of CT value and set threshold value in x-ray computer tomography.

5. Any inquiry concerning this communication or earlier communications from the examiner should be directed to Irakli Kiknadze whose telephone number is 571-272-2493. The examiner can normally be reached on 9:00-5:30.


If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Ed Glick can be reached on 571-272-2490. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

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Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free).

Irakli Kiknadze
September 28, 2005

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EDWARD J. GLICK
SUPERVISORY PATENT EXAMINER